

## **REMARKS**

Claims 1-39 remain pending. In the present Office Action, claims 1-39 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bealkowski et al., U.S. Patent No. 6,282,596 ("Bealkowski"). Applicants respectfully traverse this rejection and request reconsideration.

Much like the Chari and Kumar references previously cited in Office Actions of the present application, Bealkowski does not teach or suggest simulating a hot plug or hot pull in a simulation of a system under test, but rather an actual hot plug of actual hardware in an actual system. For example, Bealkowski teaches a "method and system for hot-plugging a processor subsystem to a system bus of a data processing system while said data processing system is active" (Bealkowski, abstract).

Claim 1 recites a combination of features including: "a first node configured to participate in a simulation of a system under test, wherein the first node is configured to simulate a first component of the system under test... wherein, responsive to the hot pull command, the first node ceases participation in the simulation to simulate a removal of the first component from the system under test." The Office Action asserts that the above highlighted features are anticipated by Bealkowski at col. 5, lines 31-40 and col. 8, line 13-col. 9, line 32. Applicants respectfully disagree.

Bealkowski teaches a hot-plug controller at col. 5, lines 31-40. Particularly, the hot-plug controller is hardware that interacts with the service processor on the I2C interface and "controls installation and removal of hot-plug adapters through PWR\_EN, EN and CFG signals as directed by an I2C signal which controls the power and signal enable/disable and configuration." (Bealkowski, col. 5, lines 36-40). Thus, the hot-plug controller does not simulate a component, nor does it cease simulation to simulate a removal of the component. Rather, the hot-plug controller operates as part of the actual hot-plug or hot-pull process in an actual system.

At col. 8, line 13-col. 9, line 32, Bealkowski teaches various operations performed by the service processor and the hot-plug controller to hot plug a processor subsystem including a processor card and associated VRM into an operating computer system (see Bealkowski, col. 7, lines 51-54). For example, Bealkowski teaches "Block 112 depicts setting the power-on configuration features for the processor card of the particular processor subsystem. These functions are accomplished by the service processor which sends commands to the hot-plug controller through I2C. The hot-plug controller then directly drives a group of processor signal pins through CFG to the processor card and samples the results of the data passing therethrough" (Bealkowski, col. 8, lines 13-21). This is clearly hardware operation of the service processor and hot-plug controller configuring the hot-plugged processor card.

Bealkowski teaches "Since the processor card is isolated from the other processors in the system due to the associated FET switch being disabled, the hot-plug controller will negotiate with the processor by emulating a processor's local APIC, acting as a BSP, with the goal being to have the added processor become an AP and not a BSP since the O/S is already active and running." (Bealkowski, col. 8, lines 57-63). This emulation includes sending bootstrap inter-processor interrupt (BIPI) messages to the processor and receiving the broadcast BIPI from the processor (Bealkowski, col. 8, line 66-col. 9, line 11). While this discussion refers to the hot-plug controller emulating the local APIC and acting as a BSP, neither the BSP nor the local APIC is being hot-plugged. Rather, the BSP is already active and running in the system. Thus, the hot-plug controller is not ceasing participation in a simulation to simulate removal of a component (the BSP or the local APIC, in this case). Instead, the hot-plug controller emulates these devices to properly configure the hot-plugged hardware, so that the hot-plugged hardware can operate in the system.

Finally, the cited section of Bealkowski teaches the service processor halting all processors, ensuring that the halt has completed, and issuing a soft reset to reset the system (Bealkowski, col. 9, lines 10-32). Once the process completes, the hot-plugged processor is functioning in the hardware system. Again, there is no simulation of a

system under test, nor the simulation of a hot pull of a component. Rather, there is the hot-plug of actual hardware in an actual system.

For at least all of the above stated reasons, Applicants respectfully submit that Bealkowski does not anticipate claim 1. Claims 2-10, dependent from claim 1, are similarly not anticipated by Bealkowski for at least the above stated reasons. Each of claims 2-10 recites additional combinations of features not anticipated by Bealkowski.

Claim 11 recites a combination of features including: "the first node configured to participate in a simulation and to simulate a first component of a system under test in the simulation; and ceasing participation of the first node in the simulation responsive to the hot pull command to simulate a removal of the first component from the system under test". The same teachings of Bealkowski highlighted above with regard claim 1 are alleged to anticipate claim 11. Applicants respectfully submit that Bealkowski does not anticipate the features of claim 11, either. Each of claims 12-19, dependent from claim 11, recites additional combinations of features not anticipated by Bealkowski.

Claim 20 recites a combination of features including: "first instructions which, when executed, cease participation in a simulation by a first node in a distributed simulation system responsive to receiving a hot pull command, the first node simulating a first component of a system under test, and the first node ceasing participation in the simulation simulates removal of the first component from the system under test". The same teachings of Bealkowski highlighted above with regard claim 1 are alleged to anticipate claim 20. Applicants respectfully submit that Bealkowski does not anticipate the features of claim 20, either. Each of claims 21-26, dependent from claim 20, recites additional combinations of features not anticipated by Bealkowski.

Claim 27 recites a combination of features including: "a first node configured to participate in a simulation of a system under test, the first node configured to simulate a first component of the system under test ...wherein the first node does not participate in the simulation prior to the hot plug command, and wherein the first node begins

participation in the simulation responsive to the hot plug command to simulate insertion of the first component in the system under test". The same teachings of Bealkowski highlighted above with regard claim 1 are alleged to anticipate claim 27. Applicants respectfully submit that Bealkowski does not anticipate the features of claim 27, either. Each of claims 28-33, dependent from claim 27, recites additional combinations of features not anticipated by Bealkowski.

Claim 34 recites a combination of features including: "the first node configured to participate in a simulation and to simulate a first component of a system under test in the simulation...the first node beginning participation in the simulation responsive to the hot plug command to simulate insertion of the first component into the system under test wherein the first node does not participate in the simulation prior to the hot plug command." The same teachings of Bealkowski highlighted above with regard claim 1 are alleged to anticipate claim 34. Applicants respectfully submit that Bealkowski does not anticipate the features of claim 34, either. Each of claims 35-39, dependent from claim 34, recites additional combinations of features not anticipated by Bealkowski.

Additionally, the Office Action asserts that claims 21-39 are directed to the computer program product and system for executing the computer program product for performing the steps in claims 1-20. Applicants respectfully traverse, at least with respect to some of the claims. Applicants respectfully submit that each claim should be examined based on the features recited in that claim.

### **CONCLUSION**

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-96500/LJM.

Respectfully submitted,

/Lawrence J. Merkel/

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